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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/553,259	07/24/2006	Ewald Schneider	239098	1773

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EXAMINER	
ADMASU, ATNAF S	

ART UNIT	PAPER NUMBER
1796	

MAIL DATE	DELIVERY MODE
03/10/2009	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/553,259	SCHNEIDER, EWALD	
	Examiner	Art Unit	
	ATNAF ADMASU	1796	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *18 November 2008*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-18* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-18* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. This Office Action is in response to the Applicant's reply filed 18 November 2008. Claims 2, 10, 12 and 13 are amended, claims 14 – 18 are new and claims 1 - 18 are pending.

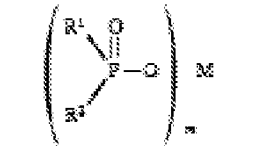
Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

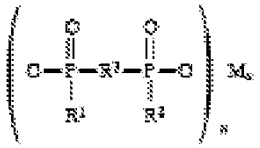
> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 1 - 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kleiner et al. (US 5773556) in view of Koch et al. (US 5071924).

Kleiner et al. teach a molding composition comprising a polyamide and a phosphoric acid salt of the formula (I) and/or a diphosphoric acid salt of the formula (II)



(I)



(II)

Where

R^1 and R^2 are identical or different and are C_1-C_{16} –alkyl,

R^3 is C_1—C_{10} –alkylarylene, linear or branched, arylene, alkylarylene, arylalkylene,

M is a calcium or aluminum ion;

m is 2 or 3; n is 1 or 3; x is 1 or 2 (see column 1, lines 40 - 64).

Kleiner et al. teach the molding material comprising a polyamide and a phosphinic or diphosphinic acid salt of the metals calcium or aluminum (see column 1, lines 65 – 67).

Kleiner et al. teach the amount of phosphinic acid salt added to the polymers is preferably 10 to 25% by weight (see column 3, lines 3 – 10 and claim 4).

Kleiner et al. teach the polyamide molding material can also comprise fillers and reinforcing materials, minerals, dyes, stabilizers, lubricants, molding aids and other customary additives (see column 4, lines 4 – 9).

Kleiner et al. teach the polyamide molding materials have the following useful applications: electrical components, such as coil formers, transformers, relays, switches, plug connecters, motors and motor parts (see column 3, lines 56 – 67). Furthermore, the property shown in the claim 13 is an inherent property.

Kleiner et al. differ from the present invention in that the polymeric material used in the molding composition is not based on semi-aromatic and partly crystalline polyamides.

Koch et al., on the other hand, in "Thermoplastic molding materials based on polyamide blends" disclose that in amide polymers in which some of the aliphatic units have been replaced by aromatic units and are partly crystalline polyamines with melting points of the of 260^{o}C to above 300^{o}C (column 3, lines 30 – 34). The polyamide

concentration ranges from 20 to 98% by weight (Abstract). The partly aromatic amide copolymers contain units derived from terephthalic acid and hexamethylenediamine. A small proportion of the terephthalic acid can be replaced by isophthalic acid (col. 2, lines 28 – 36) Koch further discloses the composition include conventional additives such as stabilizers in amount of not more than 10% by weight (col. 8, lines 47 – 52). Koch further discloses the polyamide components were melted, extruded and granules were injection molded to produce moldings (col. 10, lines 49 - 57).

At the time of the invention, it would have been obvious to a person of ordinary skill in the art combine Kleiner's calcium or aluminum phosphonates with Koch's partly crystalline polyamides to obtain flameproof polyamide molding composition. The rationale to do so would have been the motivation provided by the teaching of Koch that to do so would provide not only good heat distortion resistance but also good rigidity and a generally good property profile (col. 1, lines 64 – 68).

Koch and Kleiner do not expressly disclose the molded articles fulfill the requirement according to the UL 94-flammibility classification of VO found test pieces with a thickness of 0.4mm.

It is noted, however, that the variation of the compositions of the various components of the partly crystalline polyamides combined with the phosphonic acid salts in order to produce moldings that fulfill the requirement of the UL 94 flammability classification VO at 0.4mm in order to obtain the optimum performance would be obvious to one of ordinary skill in the art. “Where the general conditions of a claim are

disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation" (*In re Aller*, 220 F.2d 454, 456, 105 USPQ 233, 235 (CCPA 1955).

Response to Amendment

4. Applicant's amendment, filed 18 November 2008, specifically amending the specification in page 4 clarify that "melam" refers to the compound N2-(4,6—iamino-1,3,5-triazin-2-yl)-1,3,5-triazine-2,4,6-triamine has been fully considered and overcomes the following:

The objection of the specification where "melam" not being clear.

5. Applicant's amendment of claim 12 and 13 to replace the "use" claims to method claims has been fully considered and overcomes the following:

The rejection of claims 12 and 13 under 35 U.S.C. 112, second paragraph and 35 U.S.C 101, as being indefinite for merely recites a use without any active, positive steps has been withdrawn.

Response to Arguments

6. Applicant's arguments filed 18 November 2008 have been fully considered but they are not persuasive.

With regards to the argument that Kleiner and Koch, taken alone or in combination, fail to teach or suggest the invention recited by the pending claims, Examiner disagrees.

Koch teaches amide thermoplastic molding materials which are based on partly crystalline polyamides in which some of the aliphatic units have been replaced by aromatic units. These polymers exhibit desirable heat distortion resistance without mechanical properties being affected. Red phosphorus is disclosed as an example of flame-proofing agent for the partly crystalline polyamides. Kleiner, on the other hand, discloses calcium and aluminum salts of phosphinic or diphosphinic acids exhibit excellent flame retardancy in polyamide plastics.

With regards to fulfilling a flammability classification according to the UL-94 test of VO at a thickness of 0.4mm, the variation of the compositions of the various components of the partly crystalline polyamides combined with the phosphonic acid salts in order to produce moldings that fulfill the requirement of the UL 94 flammability classification VO at 0.4mm and obtain the optimum performance would be obvious to one of ordinary skill in the art. "Where the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation" (*In re Aller*, 220 F.2d 454, 456, 105 USPQ 233, 235 (CCPA 1955).

Conclusion

7. WO 02/28953 (Steenbakkers-Menting hereinafter) and US Patent 4,036,811 (Noetzel hereinafter) (an English language equivalent to DE 24 47 727), were cited as

an X-reference on the International Search Report for PCT/EP04/02992, from which the instant application claims priority. Steenbakkers-Menting and Noetzel are cumulative to Koch and Kleiner.

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to ATNAF ADMASU whose telephone number is (571)270-5465. The examiner can normally be reached on M-F 8:00-5:30, Flexible Schedule.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Harold Pyon can be reached on 571-272-1498. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/ASA/

/Timothy J. Kugel/
Primary Examiner, Art Unit 1796